

LIFEVIEW®

Condition monitoring
to evaluate the health
of your rotating
electrical assets

QUARTZ
TEQ 



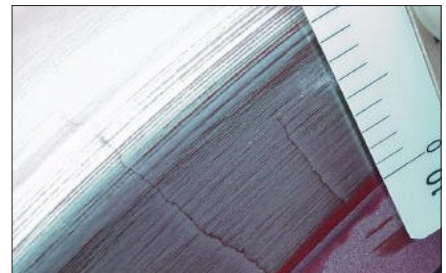
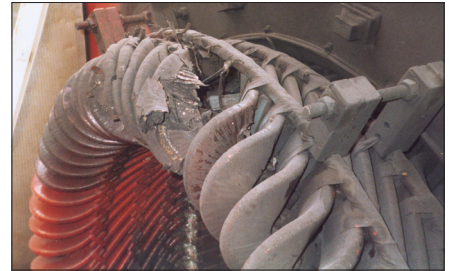
Is your rotating electrical equipment in good health?

When it comes to rotating electrical equipment, two things are inevitable: wear and tear.

Regardless of how many hours in a day, days in a month or months in a year your rotating electrical equipment is operational – or the environment it is located in – the certainty is that it will suffer routine electrical and mechanical stresses, overheating or corrosion, or all three. Sooner or later, this will result in failure ranging from inconvenient to catastrophic.

As far as you can tell, your equipment may be functioning perfectly, and showing no outward signs of wear or degradation in performance. But how can you tell what's going on inside the machine? How much wear and tear is occurring in the end windings, the bus bars or insulation, for example? And when the machine is going to start delivering substandard performance ... or fail completely?

The only truly reliable way to monitor the internals of rotating electrical equipment is by deploying LIFEVIEW on-line condition monitoring from Quartzteq.



HOW CAN YOU TELL
WHAT IS GOING
ON INSIDE YOUR
MACHINE?

WHEN WILL YOUR
MACHINE DELIVER
SUB-STANDARD
PERFORMANCE?

WHEN WILL
IT FAIL?

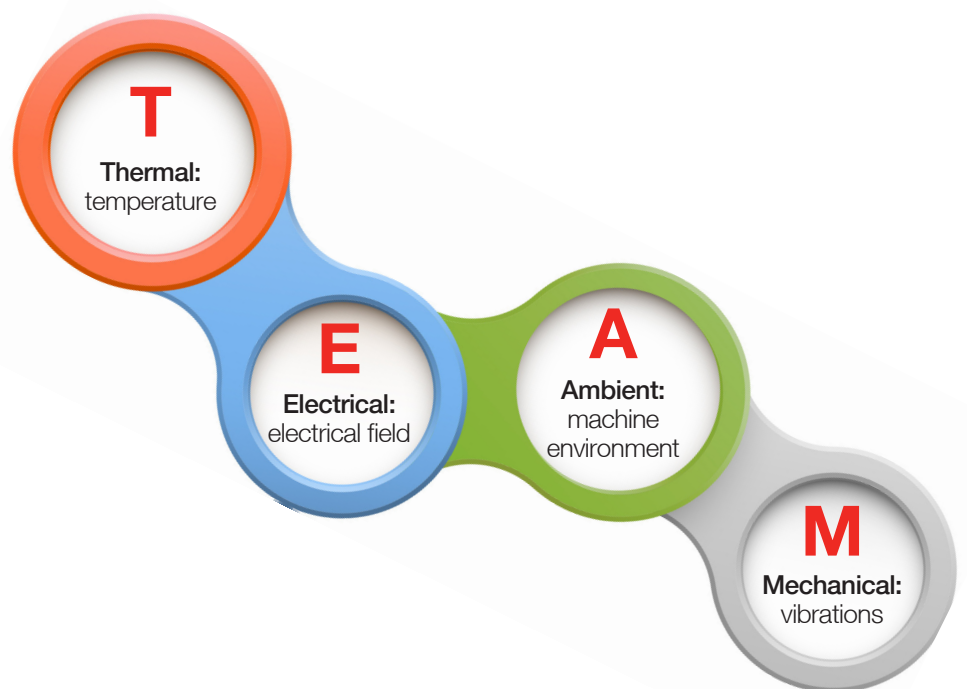
Seamless installation, unobtrusive monitoring

Liferview should be an integral element of your structured maintenance and repair strategy. It works on the principle that prevention is better than cure.

Liferview monitors the health of the machine by measuring changes in condition against a set of baseline parameters, established at the time of installation. The Liferview sensors installed measure deterioration caused by the thermal, electrical, ambient and mechanical stresses which can provide early indications of critical problems, allowing you to:-

- take remedial action
- prevent catastrophic failure
- plan for outage
- minimise lost production
- postpone expensive maintenance
- plan for investment effectively
- manage risk for warranty and insurance - predictability
- perform trending and analysis of machine status
- enjoy pinpointed, condition based repair and maintenance

In short, Liferview is a key component in reducing total cost ownership over the lifetime of the machine.



Lifeline: a modular and scalable solution

Developed by experts in the monitoring, maintenance and repair of rotating machines and designed specifically for generator and motor applications; the Lifeline solution sets new standards for the monitoring of electrical machines based on field-proven sensor technology.

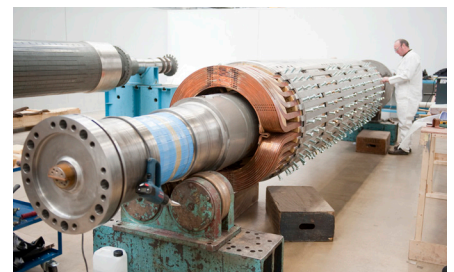
Lifeline has been designed to suit your specific maintenance and monitoring requirements, the nature of your rotating electrical equipment and the changing demands of your business; offering a package of solutions to suit all applications:

- The **Lifeline Sensors** can be installed on machines from new or retro-fitted at a later date. They are suitable for installation on machines of any OEM manufacture, with options for both safe and hazardous area
- The **Lifeline Analysers** offer various benefits from fixed installation for a critical machine or a mobile solution for a machine fleet.

Simple to install, flexible and modular, the Lifeline solution can be installed either on new machinery, as part of an overhaul/ refurbishment or during routine maintenance, with a range of parameters that can be measured:

- Partial discharge
- Loss factor (tan delta)
- Shaft voltage
- Vibration
- Rotor air gap flux
- Insulation resistance
- Polarisation index

All analysis is supported by a vast database of diagnoses carried out by Quartztec/Quartzelec over many years of supporting rotating electrical equipment. Lifeline forms part of Quartztec's comprehensive portfolio of services designed to increase efficiency and reduce costs for owners and operators of rotating machines across a wide range of sectors.



About Us

Quartzteq at a glance

Part of the Quartzelec group of businesses - a globally recognised expert in the maintenance and service of rotating capital plant and one of the largest independent electrical engineering service providers in the UK. The competencies and expertise of Quartzteq prove a formidable force in the field of rotating machine diagnostics having developed a range of condition monitoring solutions specifically designed to protect your rotating electrical assets.

Quartzteq services include:

- Partial discharge analysis
- Rotor shaft voltage monitoring
- Two pole rotor shorted turn detection
- Winding vibration and temperature monitoring
- Stator wedge tightness assessment
- Electromagnetic core imperfection detection (EL CID)
- Loss factor (tan delta) measurement
- VLF measurement
- Insulation resistance (IR) and polarisation index (PI)

Quartzelec

As an independent service provider we have garnered extensive technical experience of rotating machines rated up to 600MW of any OEM manufacture. Working across all industrial arenas; Power Generation, Oil & Gas, Petrochemical, Metals & Mining, Chemical, Manufacturing; our re-design, upgrade, repair, rewind, refurbishment, installation, maintenance and service skills are second to none. With more than 5000 successful field diagnosis' around the world, we have performed diagnostic testing on a range of motors and generators; ABB, ALSTOM, Mitsubishi, GE, Siemens, Brush, Elin, Toshiba, Weg, plus many others.

Clients include:

Oil & Gas:

Shell // BP // British Gas // Petrobras // GASCO // ADGAS // Saudi Aramco // ADNOC // Sonelgaz // Petronas

Power Generation & Utilities:

ADWEA // ScottishPower // Premier Power // Bermuda Power & Light // TAQA // GDF Suez // Scottish & Southern Energy // SEMBCorp Singapore // E.ON // RWE npower // Derwent Power // Jersey Electric // TNB // Powertek // ESB



Lifeview® is a
key component
in reducing total
cost of ownership
over the lifetime
of the machine.

Quartztec Network

We continuously strive to serve our customers across a worldwide network.

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